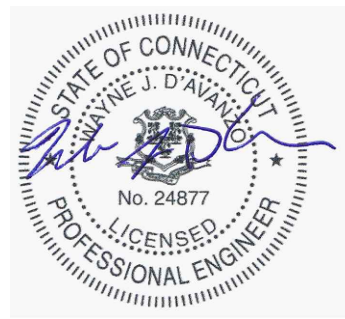
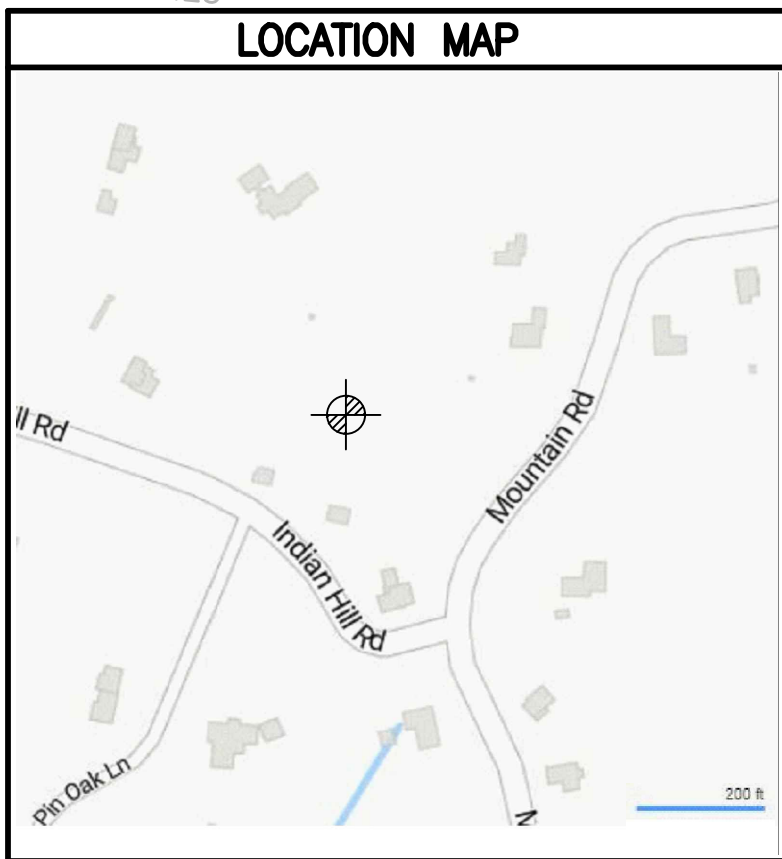


GENERAL CONSTRUCTION NOTES:

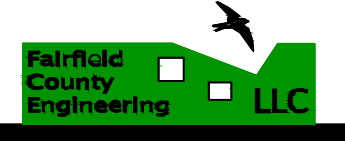
1. CONSTRUCTION AND STRUCTURES SHALL COMPLY WITH ALL MUNICIPAL OR STATE REQUIREMENTS. ALL WORK SHALL BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER, TO THE SATISFACTION OF THE ENGINEERING BUREAU, THAT CONSTRUCTION IS IN ACCORDANCE WITH THESE PLANS.
2. THE ENGINEERING BUREAU OF THE DEPARTMENT OF PUBLIC WORKS AND THE ENGINEER OF RECORD SHALL BE NOTIFIED THREE DAYS PRIOR TO THE COMMENCEMENT OF EACH PHASE OF CONSTRUCTION.
3. NO CERTIFICATE OF CONFORMANCE TO STANDARDS SHALL BE ISSUED BY THE DESIGN ENGINEER IF PROPER NOTICE IS NOT PROVIDED FOR INSPECTIONS OR IF INSPECTIONS ARE NOT MADE PRIOR TO BACKFILLING OF BELOW GROUND STRUCTURES AND APPURTENANCES.
4. SUBSURFACE STRUCTURES AND UTILITIES HAVE BEEN DETERMINED FROM EXISTING RECORDS AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. IN ORDER TO AVOID CONFLICT OF THE PROPOSED WORK AND EXISTING UTILITIES, THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES BY EXCAVATING TEST HOLES. IF THE CONTRACTOR DETERMINES THAT A CONFLICT EXISTS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER, WHO WILL MAKE THE NECESSARY ADJUSTMENTS.
5. EXISTING PROPERTY AND UTILITY INFORMATION WAS TAKEN FROM A SURVEY BY ALL SEASONS LAND SURVEYING TITLED "ZONING LOCATION SURVEY PREPARED FOR OLD DRIFTWAY LLC", DATED MARCH 31, 2023.
6. THESE PLANS ARE FOR MUNICIPAL OR STATE AGENCY APPROVAL ONLY. NOT FOR CONSTRUCTION.
7. NO PIPE SHALL HAVE A BEND OF GREATER THAN 45 DEGREES.
8. THE CONTRACTOR SHALL NOTIFY "CALL BEFORE YOU DIG" AT 1-800-922-4455, OR OTHER APPROPRIATE CONTACT POINT PRIOR TO START OF CONSTRUCTION.
9. ALL UTILITY LOCATIONS ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE LOCATION OF THE UTILITIES IN THE FIELD BY WHATEVER MEANS HE DEEMS PRUDENT.
10. THIS DESIGN CONFORMS TO APPLICABLE CODES AND ACCEPTED PRACTICE, NO OTHER WARRANTY IS EXPRESSED OR IMPLIED.
11. TOTAL SITE AREA = 2.82 ACRES

SEDIMENTATION AND EROSION CONTROL NOTES

1. LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM. PERMANENT STABILIZATION SHALL BE SCHEDULED AS SOON AS FINAL GRADES ARE ESTABLISHED.
2. ALL DISTURBED AREAS SHALL BE FINE GRADED AND SEEDED WITH AN APPROVED SEED MIXTURE. COVER NEWLY SEEDED AREAS WITH MULCH HAY OR SALT HAY.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE 2002 CONNECTICUT "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" HANDBOOK.
4. ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. CHECK AFTER EACH STORM EVENT.
5. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF REQUIRED BY TOWN AUTHORITIES.
6. SEDIMENT DEPOSITS REMOVED FROM FILTER BARRIERS SHALL BE PLACED IN FILL AREAS OR SPREAD WHERE THERE IS PROPOSED VEGETATIVE COVER. ANY SEDIMENT DEPOSITS REMAINING AFTER THE FILTER BARRIER IS REMOVED SHALL BE FINE GRADED AND PLANTED ACCORDING TO PLAN.
7. THE SITE CONSTRUCTION CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE PLANNING AND ZONING OFFICE (AND/OR THE CONSERVATION COMMISSION) OF ANY TRANSFER OF THIS RESPONSIBILITY AND CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED TO A NEW OWNER.



10-6-23  
date



60 WINFIELD STREET, NORWALK, CONNECTICUT 06855 PH: (203) 831-8005 FAX: (203) 831-8006

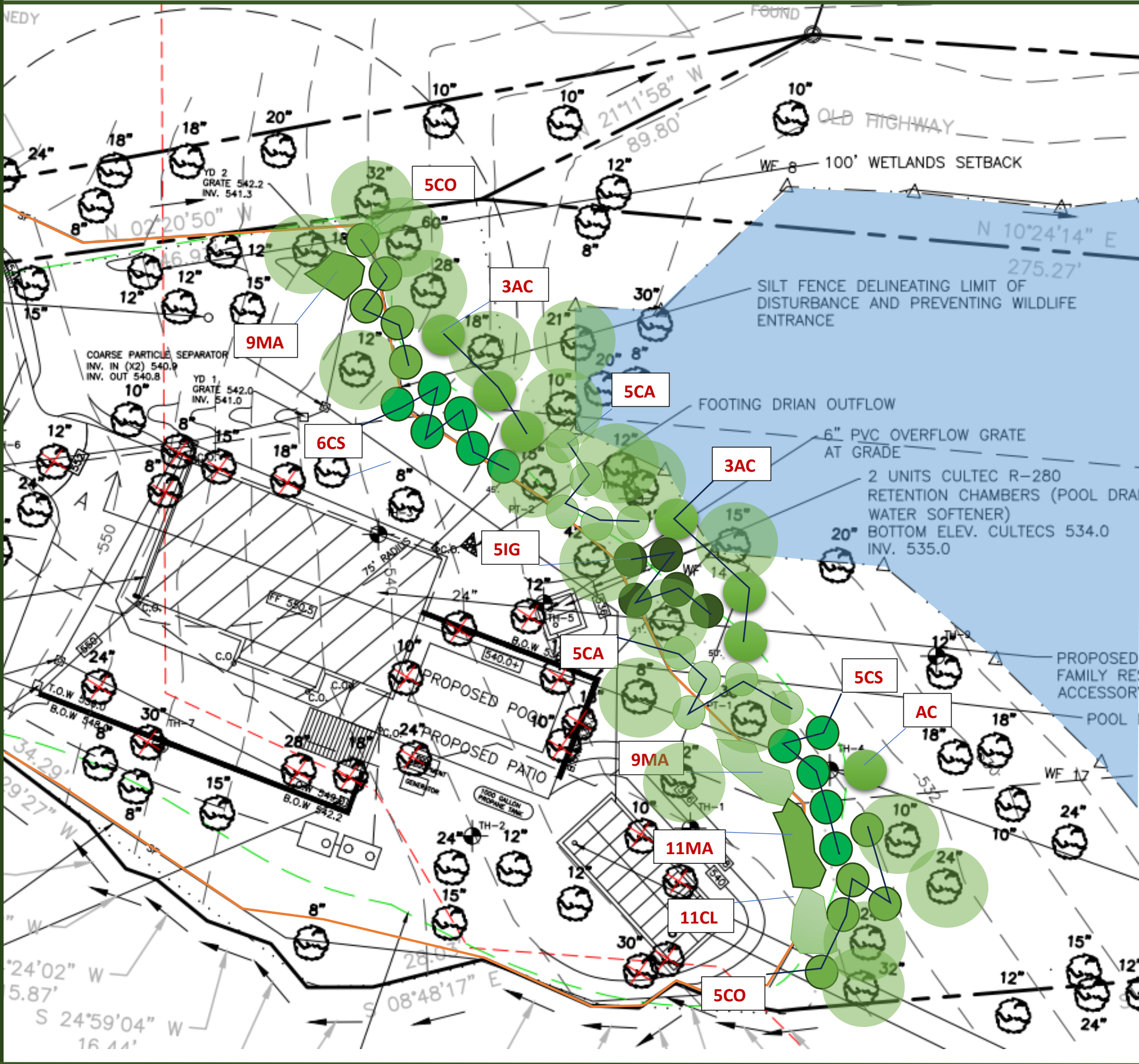
REV. 12/16/23: PER WETLANDS.	
<b>OLD DRIFTWAY LLC</b>	
0 MOUNTAIN ROAD WILTON, CONNECTICUT	
DRAINAGE PLAN	
CIVIL ENGINEERS	2168 project
<b>FAIRFIELD COUNTY ENGINEERING L.L.C.</b>	
1 OF 2 sheet	



# WETLAND BUFFER RESTORATION PLAN

## O MOUNTAIN ROAD, LOT 25-2, WILTON, CT

BY ALEKSANDRA MOCH LANDSCAPE DESIGNER, DECEMBER 21, 2023



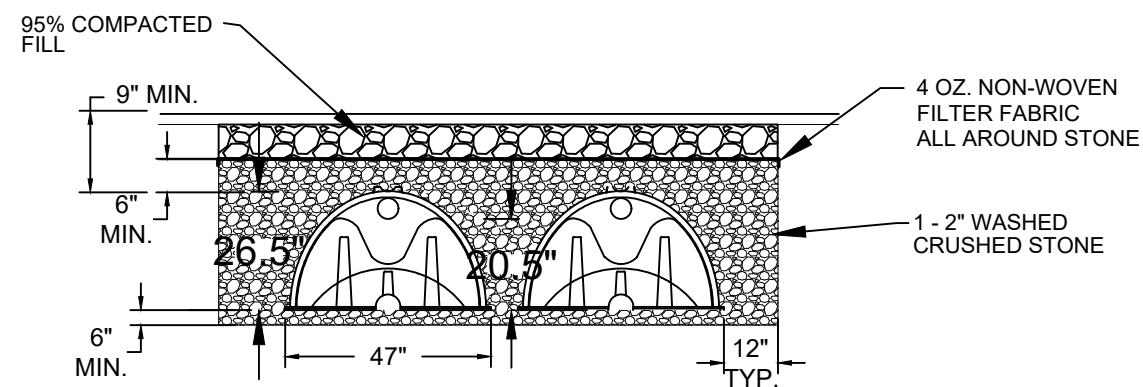
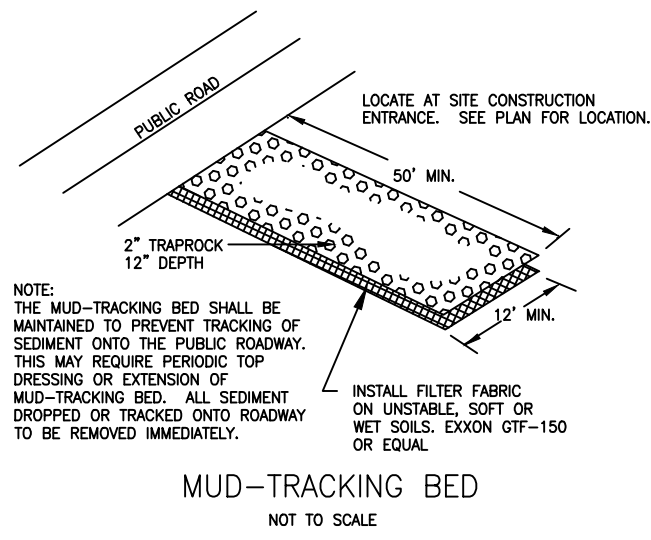
### PLANTING SCHEDULE

QTY	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT
7	AC	Amelanchier canadensis / Serviceberry tree	5'-6'	Cont.
5	IG	Ilex glabra 'Compacta' / Inkberry	3'-4'	Cont.
11	CS	Cornus sericea / Red osier dogwood	3'-4'	Cont.
10	CO	Cephalanthus occidentalis / Buttonbush	3'-4'	Cont.
10	CA	Clethra alnifolia / Summersweet	2'-3'	Cont.
20	CL	Chasmanthium latifolium / Northern sea oats	#3	Cont.
20	MA	Matteuccia / Ostrich fern	#3	Cont.

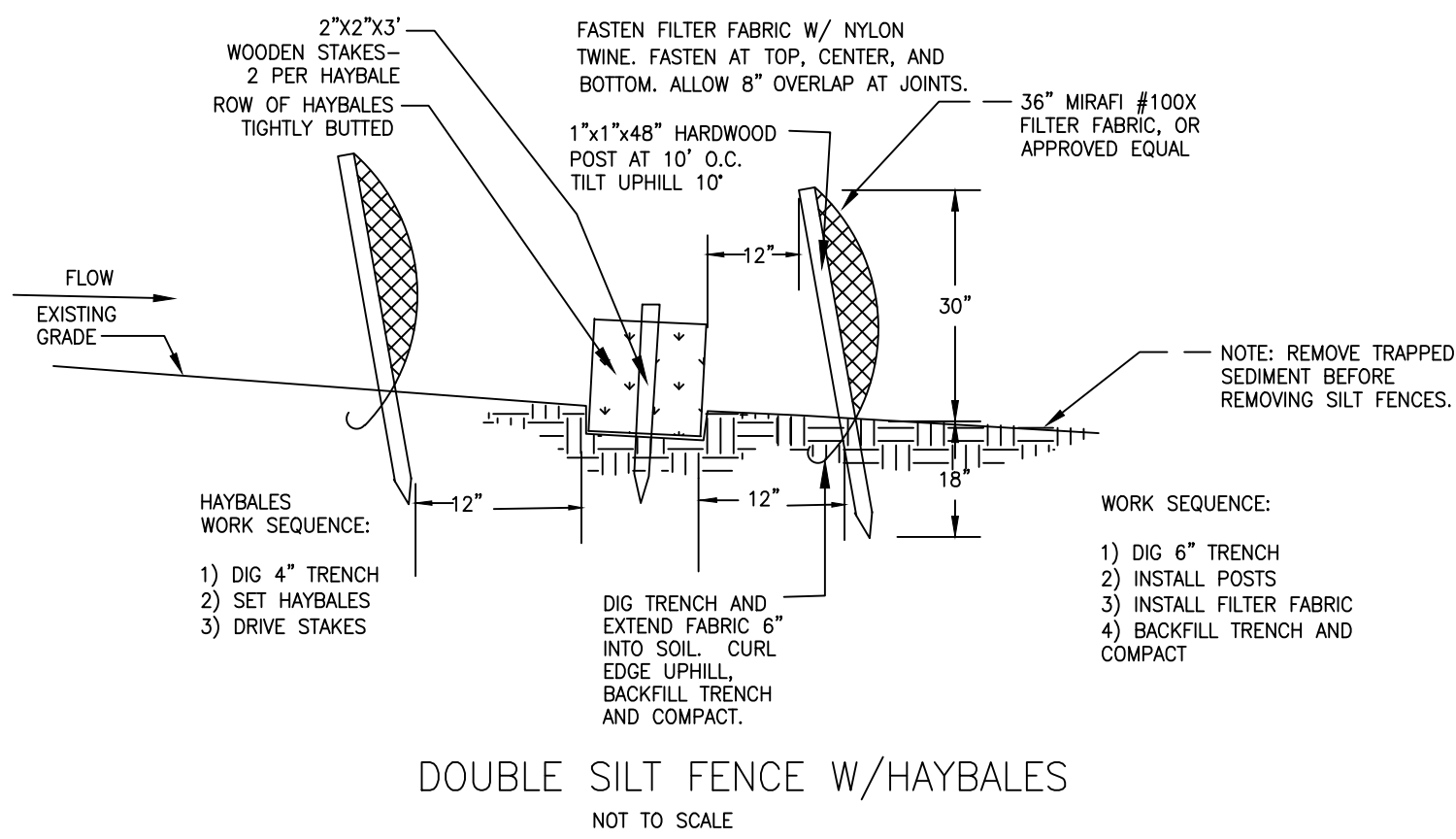


FCE Project #	2168	Date Performed:	6/21/2023
Client:	Old Driftway LLC		
Location:	0 Mountain Road, Wilton		
Observed by:	Wayne D'Avanzo		
Test Hole 1:	0.6" Topsoil 5.24" Tan Fine Gravel No Ground Water No Mottling Ledge @ 24" Roots to 20"		
Test Hole 2:	0.6" Topsoil 6.07" Tan Fine Gravel No Ground Water No Mottling Ledge @ 50" Roots to 30"		
Test Hole 3:	0.6" Topsoil 8.30" Tan Fine Gravel 30.52" Grey Fine Sand and Gravel No Ground Water No Mottling Ledge @ 52"		
Test Hole 4:	0.7" Topsoil 7.28" Tan Fine Gravel 28.47" Grey Fine Sand and Gravel No Ground Water No Mottling Ledge @ 49" Roots to 21"		
Test Hole 5:	0.6" Topsoil 6.29" Tan Fine Gravel 28.47" Grey Fine Sand and Gravel No Ground Water No Mottling Ledge @ 49" Roots to 30"		
Test Hole 6:	0.6" Topsoil 6.49" Tan Fine Gravel No Ground Water No Mottling Ledge @ 49" Roots to 30"		
Test Hole 7:	0.6" Topsoil 6.49" Tan Fine Gravel No Ground Water No Mottling Ledge @ 49" Roots to 42"		
Test Hole 8:	0.6" Topsoil 6.39" Tan Fine Gravel No Ground Water No Mottling Ledge @ 30" Roots to 39"		
Test Hole 9:	0.6" Topsoil 6.49" Tan Fine Gravel No Ground Water No Mottling Ledge @ 49" Roots to 20"		

Conducted by:	Wayne D'Avanzo	Project:	2168
Location:	0 Mountain Road	Town:	Wilton
Client:	Old Driftway LLC	Date:	6/21/2023
Weather conditions prior to and during tests:	Clear		
Single Lot:	X	Subdivision:	
Depth of Hole:	8"	Depth of Hole:	19"
Design	PT-1		
Pre-soak @ 9:30 AM	Time	Time Increment	Depth to Water
10:30 AM	10 Min	14.12"	8.12"
10:40 AM	10 Min	13.12"	4"
10:50 AM	10 Min	13.12"	4"
11:00 AM	10 Min	13.12"	5.18"
11:10 AM	10 Min	15.18"	2"
11:20 AM	10 Min	8.78"	1.34"
11:30 AM	10 Min	10.32"	1.12"
11:30 AM	10 Min	11.78"	1.12"
Design	PT-2		
Pre-soak @ 9:35 AM	Time	Time Increment	Depth to Water
10:35 AM	10 Min	11"	—
10:45 AM	10 Min	15.14"	4.14"
10:55 AM	10 Min	6.12"	3.12"
11:05 AM	10 Min	8.34"	2.14"
11:15 AM	10 Min	10.38"	1.58"
11:25 AM	10 Min	11.78"	1.12"
Design	PT-3		
Pre-soak @ 9:35 AM	Time	Time Increment	Depth to Water
10:35 AM	10 Min	11"	—
10:45 AM	10 Min	15.14"	4.14"
10:55 AM	10 Min	6.12"	3.12"
11:05 AM	10 Min	8.34"	2.14"
11:15 AM	10 Min	10.38"	1.58"
11:25 AM	10 Min	11.78"	1.12"

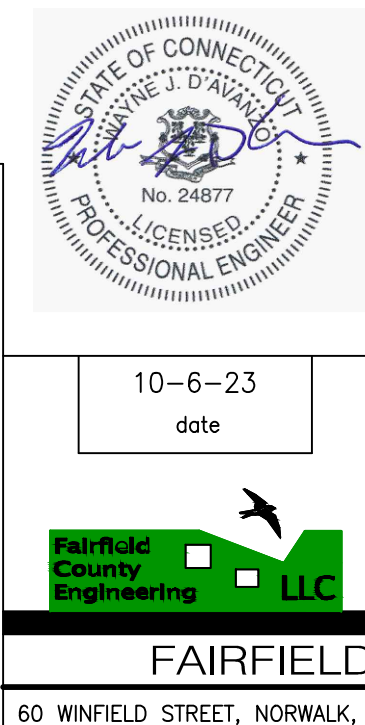
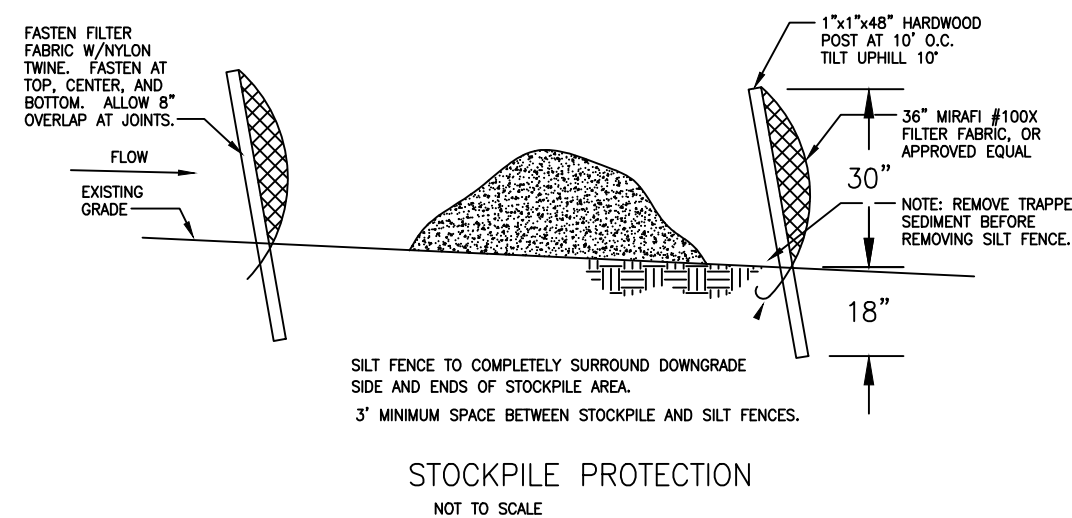
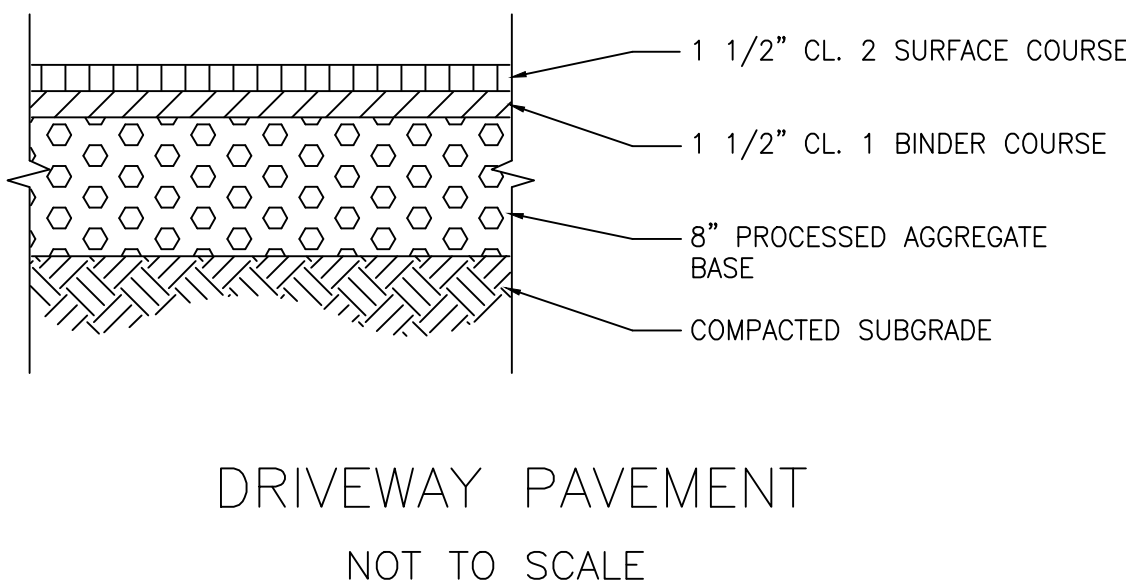
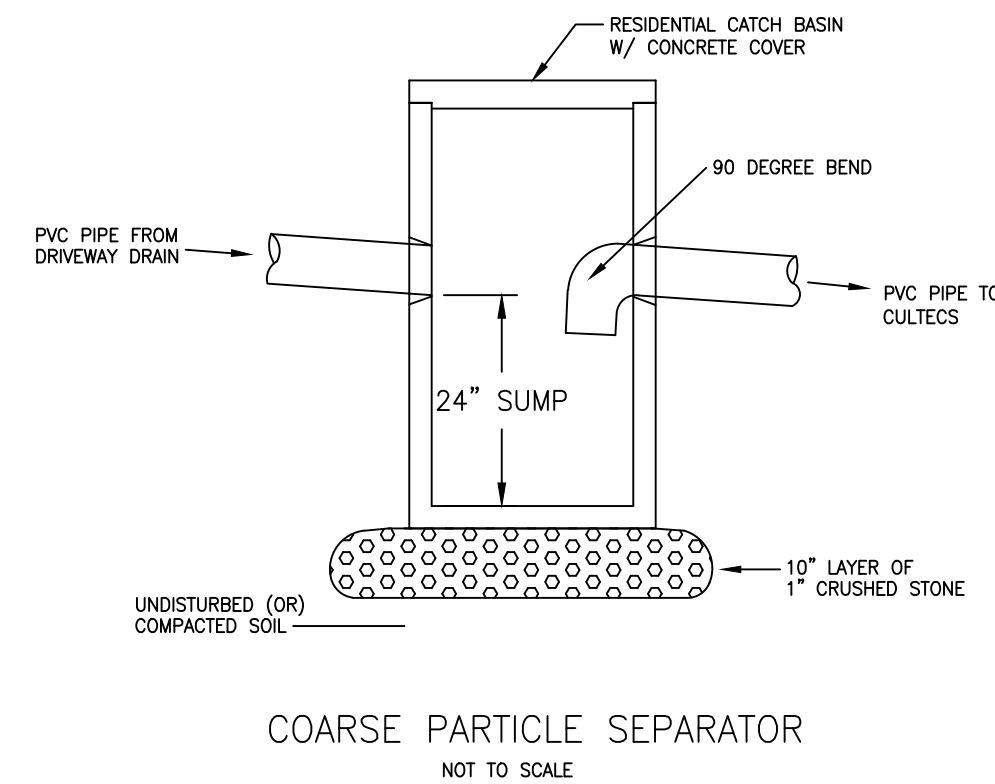
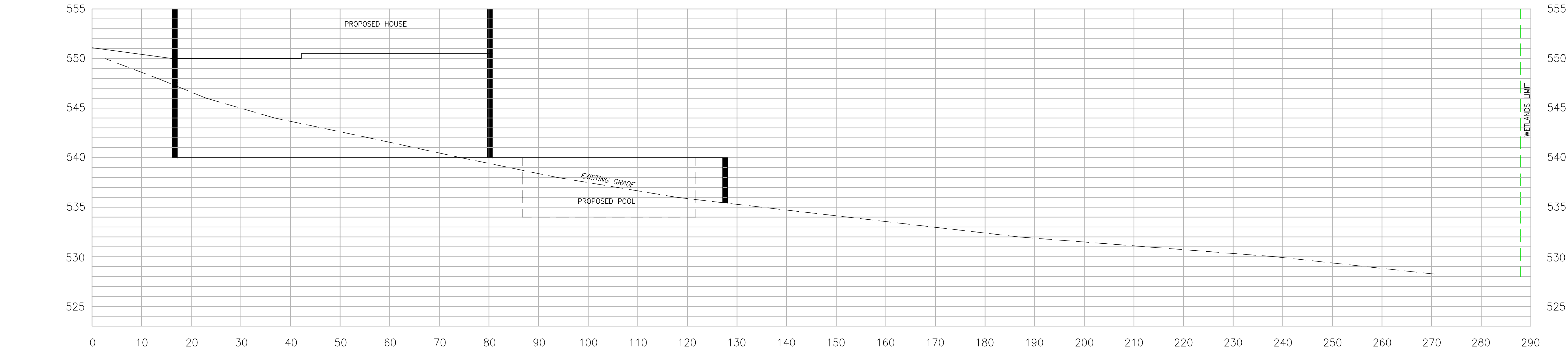


CULTEC RECHARGER 280HD  
TYPICAL CROSS SECTION



DOUBLE SILT FENCE W/HAYBALES  
NOT TO SCALE

SECTION A-A  
SCALE- H: 1"=10'  
V: 1"=5'

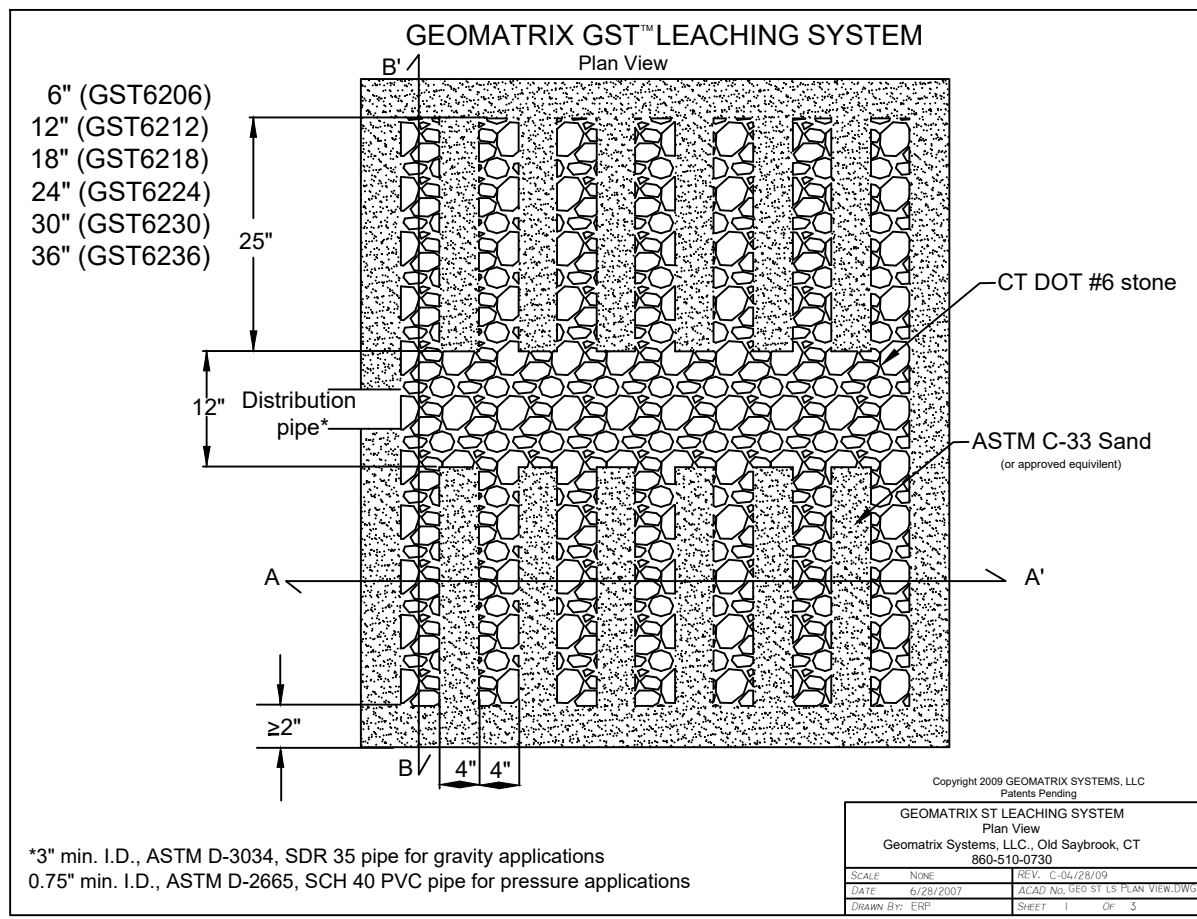
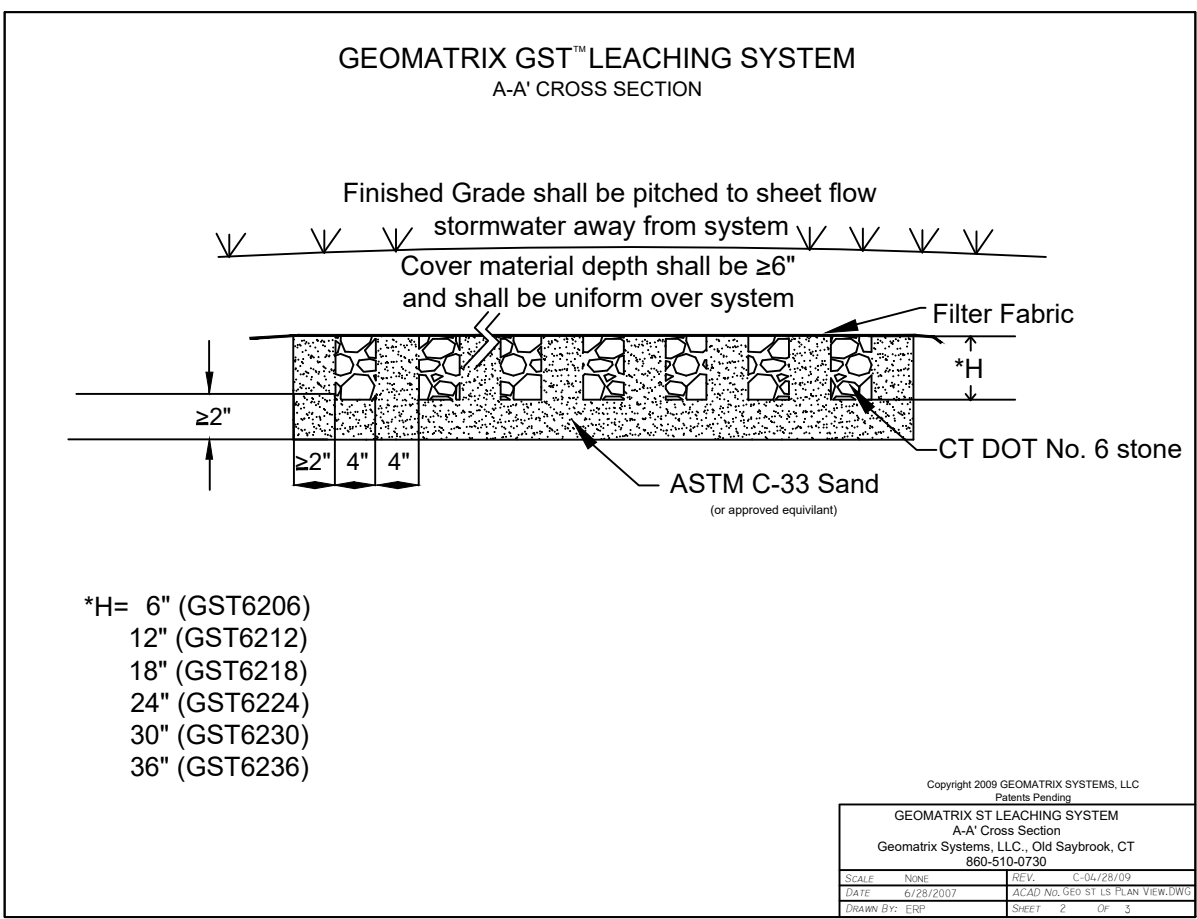


REV. 12/16/23: PER WETLANDS.	OLD DRIFTWAY LLC	
0 MOUNTAIN ROAD	WILTON, CONNECTICUT	
DETAIL SHEET		
CIVIL ENGINEERS	2168	project
FAIRFIELD COUNTY ENGINEERING L.L.C.	2	OF 2
60 WINFIELD STREET, NORWALK, CONNECTICUT 06855 PH: (203) 831-8005 FAX: (203) 831-8006	sheet	

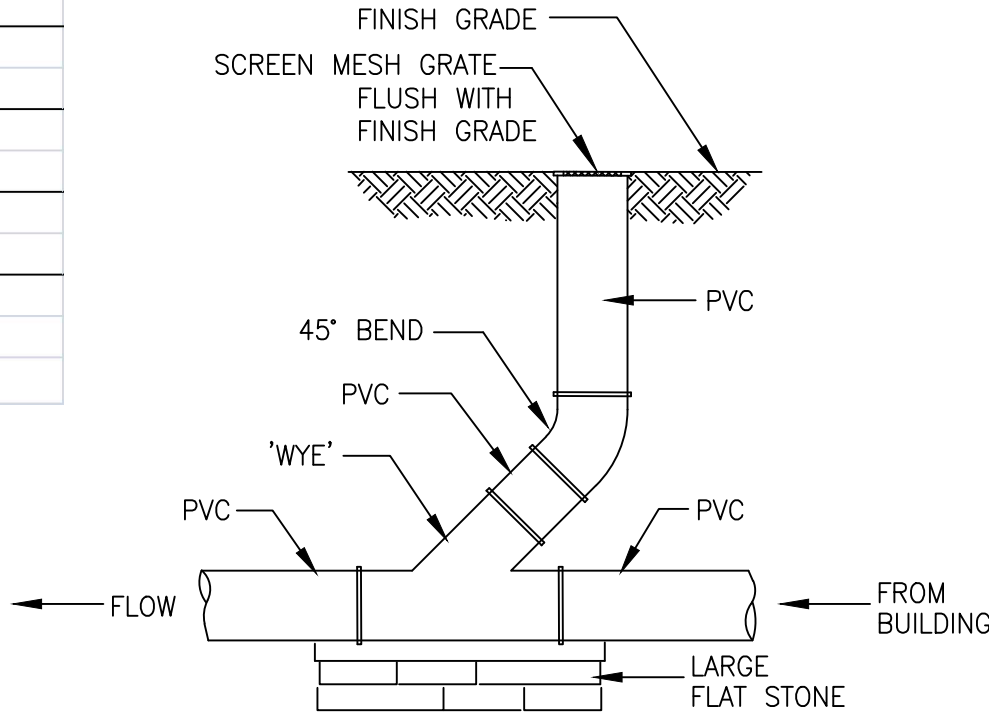


FCE Project #	2168	Date Performed:	6/21/2023
Client:	Old Driftway LLC		
Location:	0 Mountain Road, Wilton		
Observed by:	Wayne D'Avanzo		
Test Hole 1:	0-5" Topsoil 5-24" Tan Fine Gravel No Ground Water No Mottling Ledge @ 24" Roots to 20"		
Test Hole 2:	0-6" Topsoil 6-60" Tan Fine Gravel No Ground Water No Mottling Ledge @ 60" Roots to 24"		
Test Hole 3:	0-8" Topsoil 8-30" Tan Fine Gravel 30-52" Grey Fine Sand and Gravel No Ground Water No Mottling Ledge @ 52"		
Test Hole 4:	0-7" Topsoil 7-28" Tan Fine Gravel 28-49" Grey Fine Sand and Gravel No Ground Water No Mottling Ledge @ 49" Roots to 21"		
Test Hole 5:	0-6" Topsoil 6-29" Tan Fine Gravel 29-48" Grey Fine Sand and Gravel No Ground Water No Mottling Ledge @ 48" Roots to 26"		
Test Hole 6:	0-6" Topsoil 6-49" Tan Fine Gravel No Ground Water No Mottling Ledge @ 49" Roots to 36"		
Test Hole 7:	0-6" Topsoil 6-49" Tan Fine Gravel No Ground Water No Mottling Ledge @ 49" Roots to 40"		
Test Hole 8:	0-6" Topsoil 6-39" Tan Fine Gravel No Ground Water No Mottling Ledge @ 39" Roots to 29"		
Test Hole 9:	0-6" Topsoil 6-46" Tan Fine Gravel No Ground Water No Mottling Ledge @ 46" Roots to 26"		

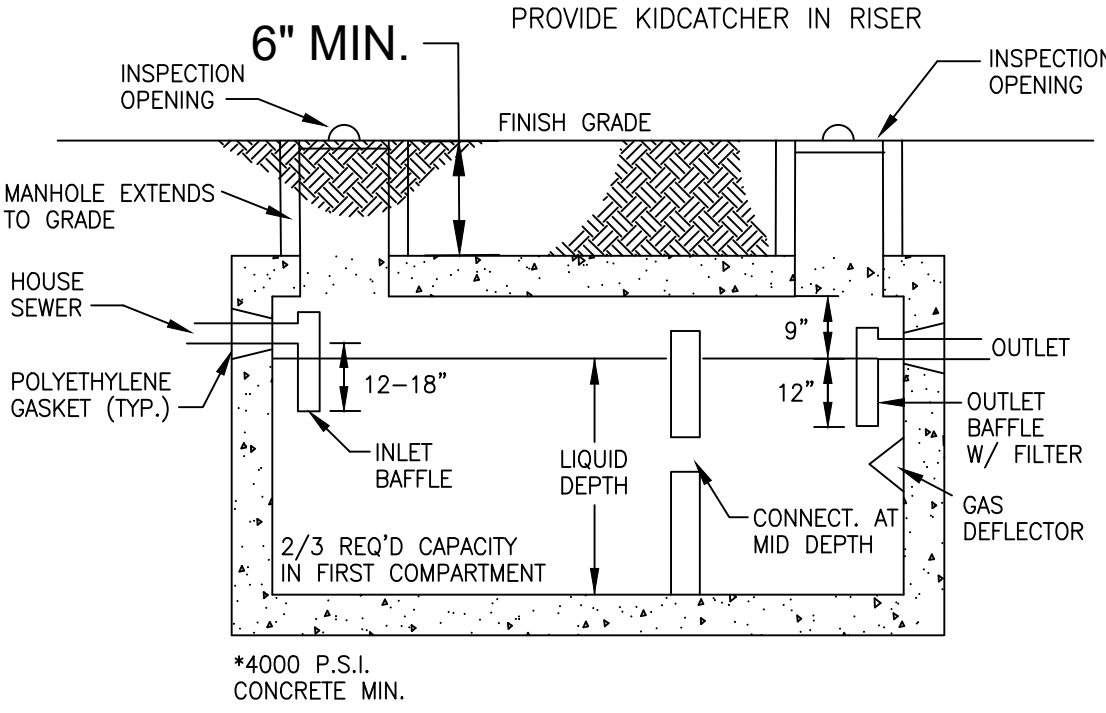
Conducted by:		Wayne D'Avanzo		Project:		2168	
Location:		0 Mountain Road		Town:		Wilton	
Client :		Old Driftway LLC		Date:		6/21/2023	
Weather conditions prior to and during tests:							
Clear							
Single Lot:		X		Subdivision:			
Diameter of Hole:		8"		Depth of Hole:		19"	
PT-1				Design			
Pre-soak @ 9:30 AM				1"/10 Min.			
Time	Time Increment	Depth to Water	Drop in inches	Soil Percolation Rate Time to drop 1 inch			
10:30 AM	---	6"	---	---			
10:40 AM	10 Min.	14 1/2"	8 1/2"	1.2 Min.			
10:50 AM	10 Min.	13 1/2"	4"	2.5 Min.			
11:00 AM	10 Min.	13 1/8"	5 1/8"	2.0 Min.			
11:10 AM	10 Min.	15 1/8"	2"	5.0 Min.			
11:20 AM	10 Min.	8 7/8"	1 3/4"	5.7 Min.			
11:30 AM	10 Min.	10 3/8"	1 1/2"	6.7 Min.			
Single Lot:		X		Subdivision:			
Diameter of Hole:		8"		Depth of Hole:		20"	
PT-2				Design			
Pre-soak @ 9:35 AM				1"/10 Min.			
Time	Time Increment	Depth to Water	Drop in inches	Soil Percolation Rate Time to drop 1 inch			
10:35 AM	---	4"	---	---			
10:45 AM	10 Min.	11"	7"	1.4 Min.			
10:55 AM	10 Min.	15 1/4"	4 1/4"	2.4 Min.			
11:05 AM	10 Min.	6 1/2"	3 1/2"	2.9 Min.			
11:15 AM	10 Min.	8 3/4"	2 1/4"	4.4 Min.			
11:25 AM	10 Min.	10 3/8"	1 5/8"	6.2 Min.			
11:35 AM	10 Min.	11 7/8"	1 1/2"	6.7 Min.			



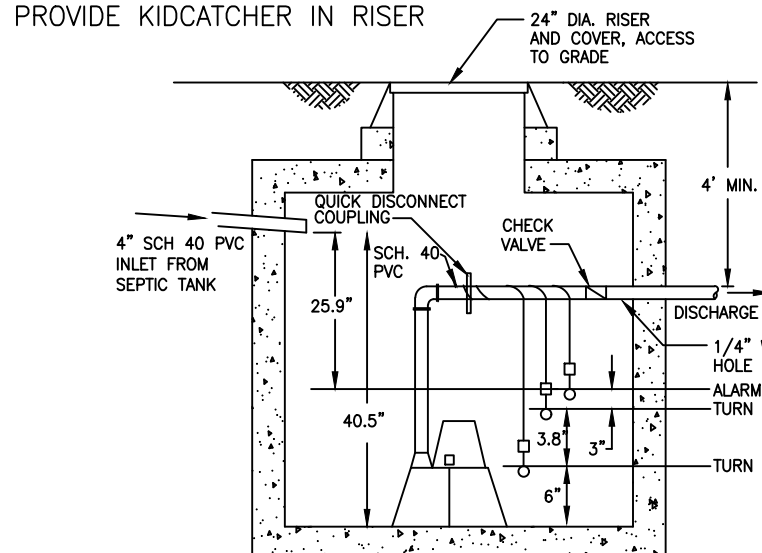
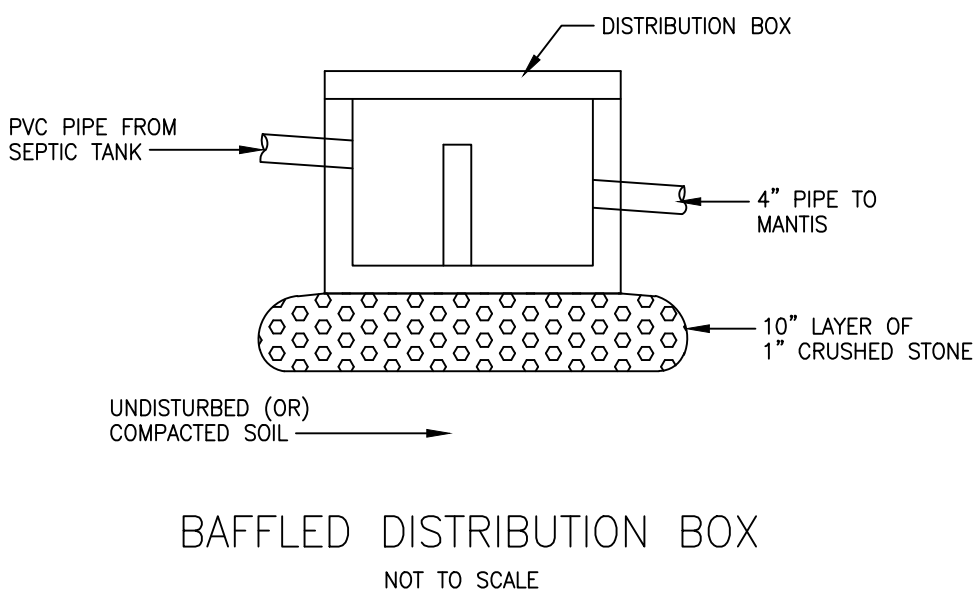
FCE Project #	2168	Date Performed:	12/18/2023
Client:	Old Driftway LLC		
Location:	0 Mountain Road, Wilton		
Observed by:	Others		
Probe	No Ledge to depth of 48"		



TYPICAL CLEANOUT  
NOT TO SCALE

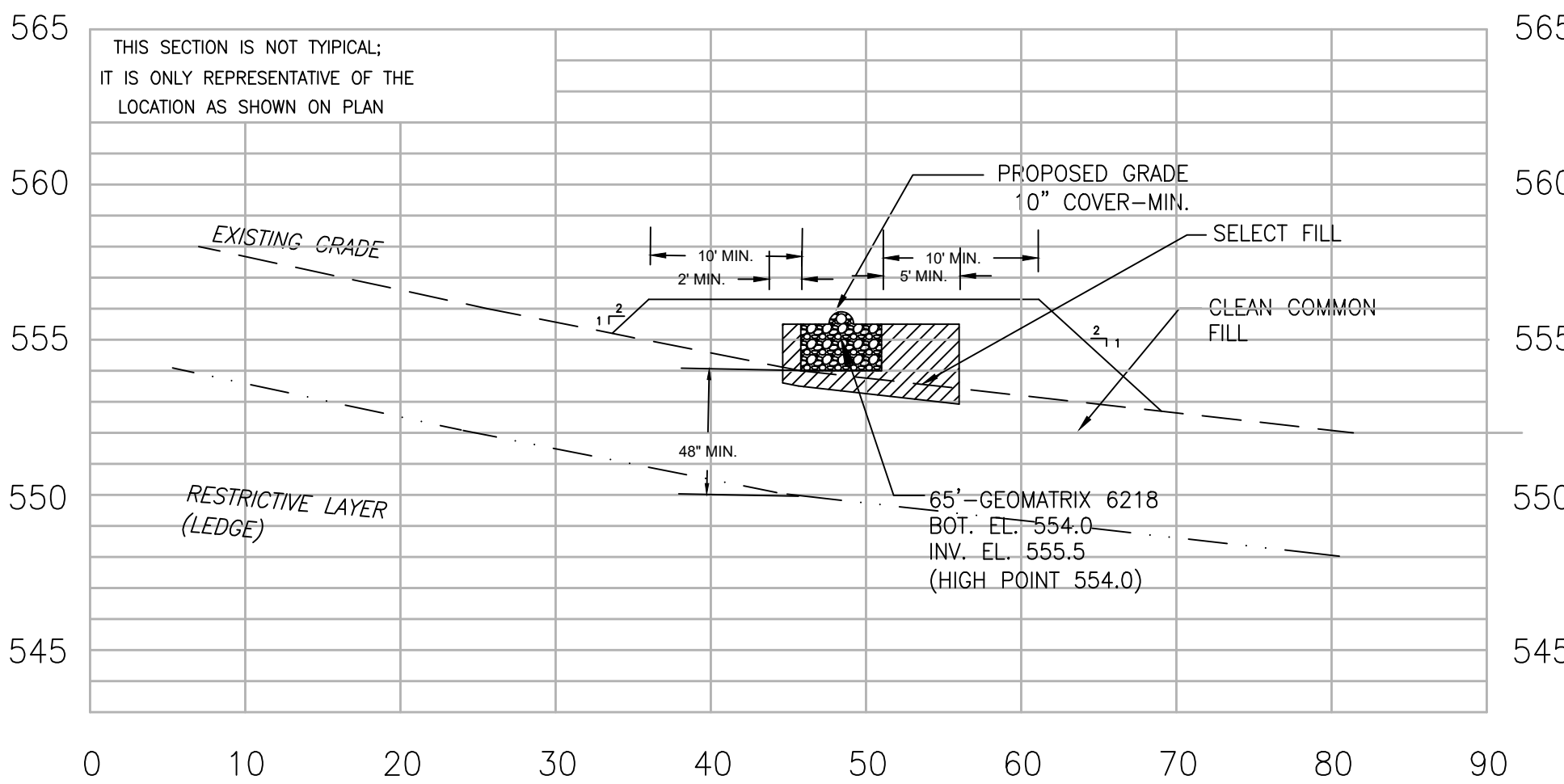


SEPTIC TANK (2000 GAL+)  
NOT TO SCALE



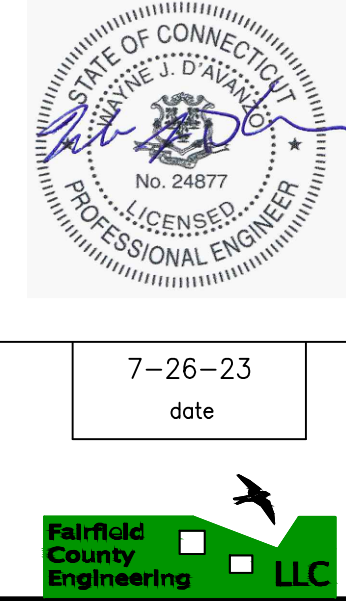
1500 GALLON PUMP CHAMBER  
NOT TO SCALE

65' OF GEOMATRIX GST 6218 CAPACITY = 899.6 GALLONS  
MAX. DOSE FOR 65' OF GEOMATRIX GST 6212 = 449.8 GALLONS/CYCLE  
DOSE PROPOSED = 150 GALLONS PER CYCLE  
PUMP CHAMBER CAPACITY = APPROX. 40.0 GALLONS/INCH DEPTH  
PUMP 6" OFF BOTTOM = 240 GALLONS; CYCLE = 3.8" = 150 GALLONS;  
1,110 GALLONS RESERVE 3 BEDROOMS X 150 GALLONS/DAY + 5 (75) = 825 GALLONS  
LIBERTY 290 SERIES PUMP DELIVERS APPROX. 30 GALLONS/MIN.



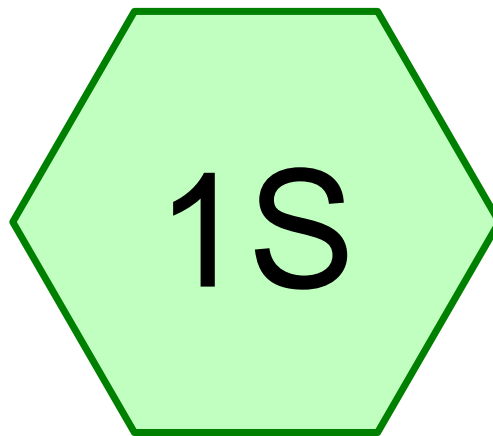
SECTION A-A  
SCALE- H: 1"=10'  
V: 1"=5'

SLOPE CALCULATIONS		
SLOPE LINE A: 3.5'/81.2'	4.3%	553.5 to 550.0
SLOPE LINE B: 3.7'/56.9'	6.5%	553.7 to 550.0
SLOPE LINE C: 5.6'/59.7'	9.4%	553.6 to 548.0
AVG. SLOPE 6.73%		

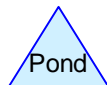
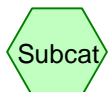


REV. 12/16/23: PER WETLANDS.	
OLD DRIFTWAY LLC	
0 MOUNTAIN ROAD WILTON, CONNECTICUT	
DETAIL SHEET	
CIVIL ENGINEERS	2168 project
FAIRFIELD COUNTY ENGINEERING L.L.C.	
60 WINFIELD STREET, NORWALK, CONNECTICUT 06855 PH: (203) 831-8005 FAX: (203) 831-8006	
7-26-23 date	2 OF 2 sheet





# Existing Conditions



## Routing Diagram for 2168ExistingRev1

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**Summary for Subcatchment 1S: Existing Conditions**

Runoff = 7.70 cfs @ 12.08 hrs, Volume= 0.551 af, Depth> 2.34"

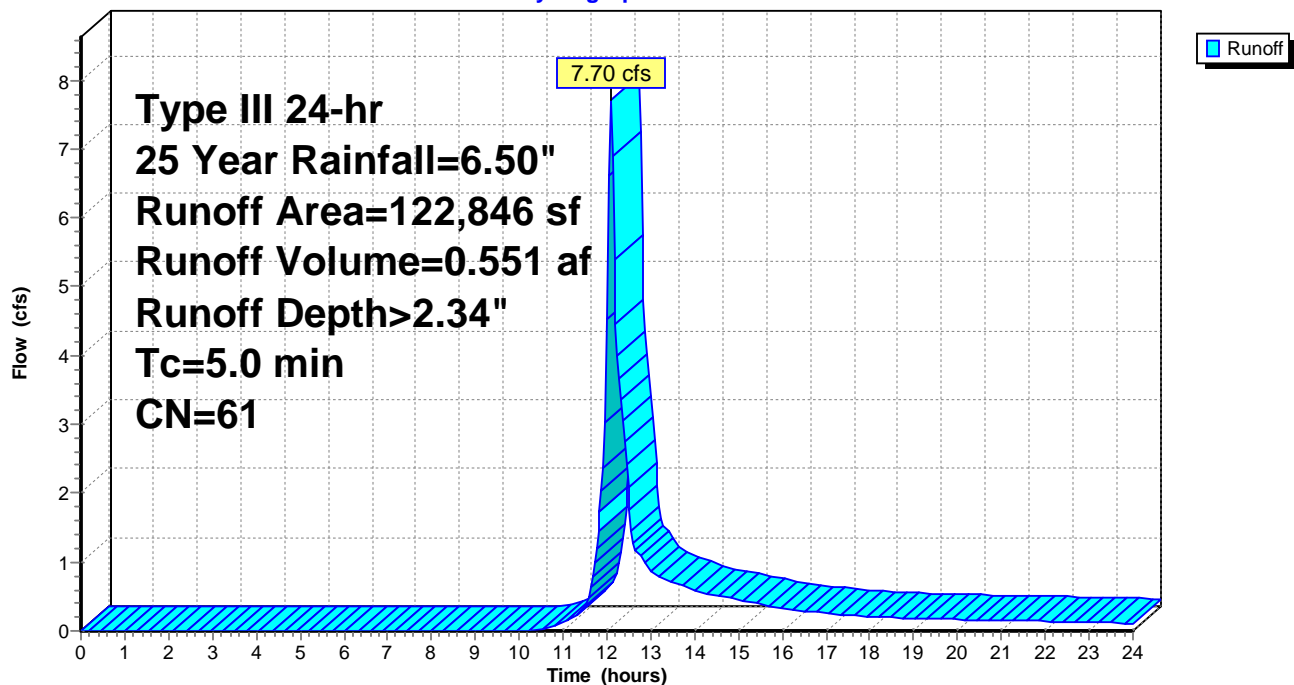
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs  
Type III 24-hr 25 Year Rainfall=6.50"

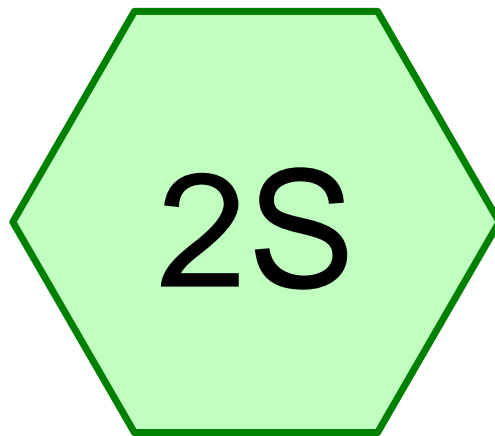
Area (sf)	CN	Description
* 122,846	61	Woods, Fair, HSG B
122,846		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Direct

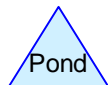
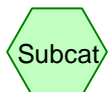
**Subcatchment 1S: Existing Conditions**

Hydrograph





# Proposed Conditions



## Routing Diagram for 2168ProposedRev3

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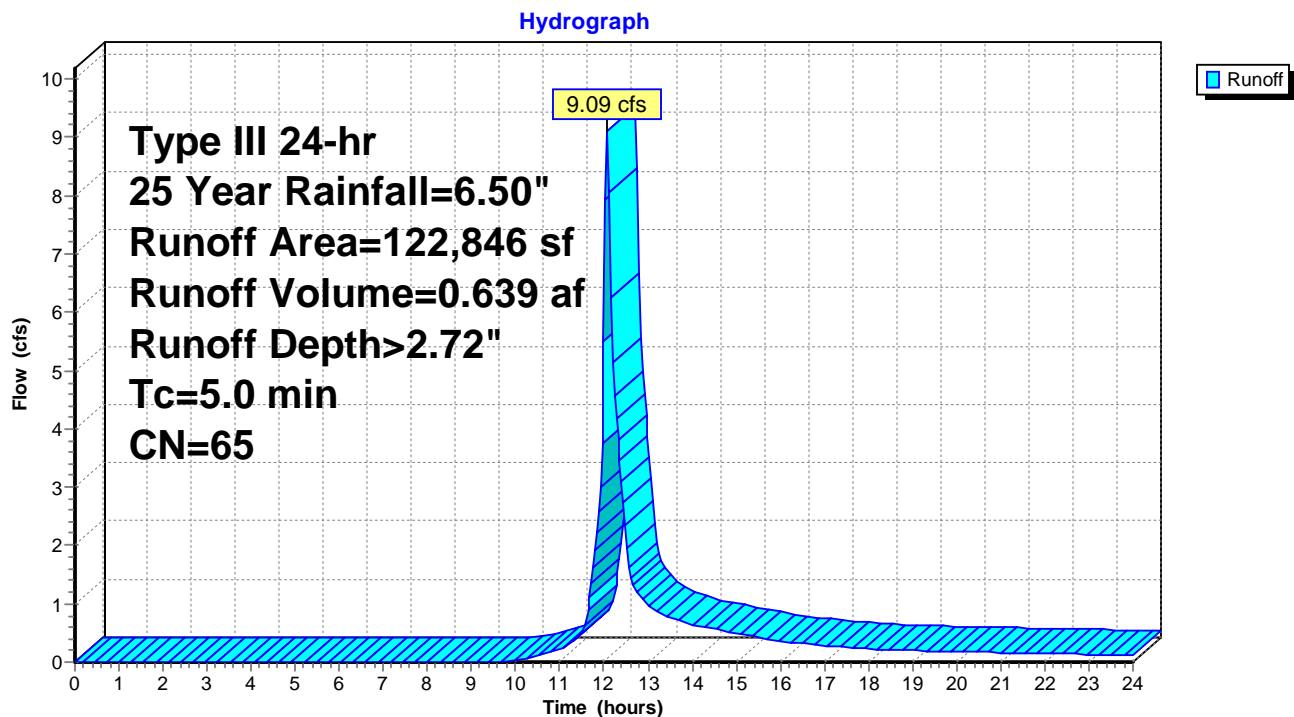
**Summary for Subcatchment 2S: Proposed Conditions**

Runoff = 9.09 cfs @ 12.08 hrs, Volume= 0.639 af, Depth> 2.72"

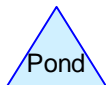
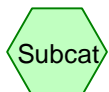
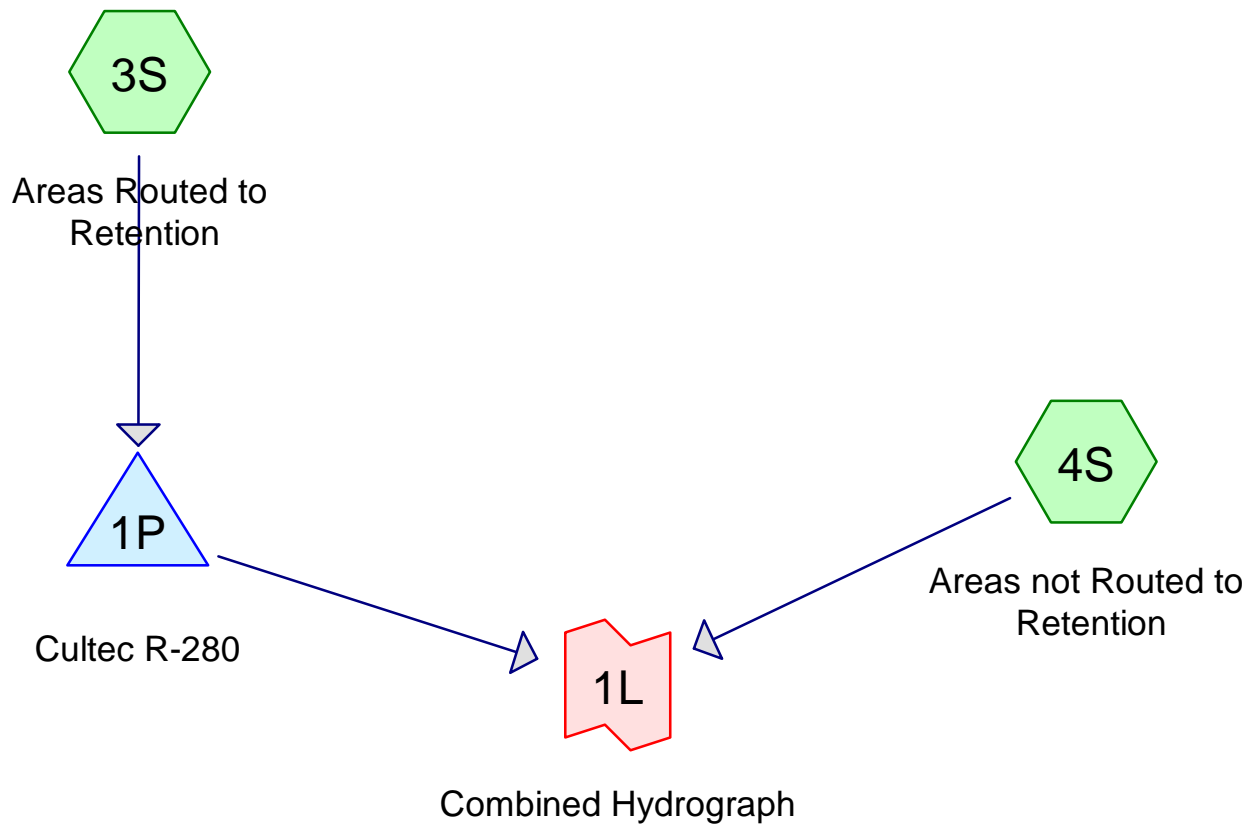
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs  
Type III 24-hr 25 Year Rainfall=6.50"

	Area (sf)	CN	Description
*	2,468	98	House
*	5,115	98	Driveway
*	525	98	Pool
*	1,395	98	Patio
	22,488	69	50-75% Grass cover, Fair, HSG B
*	90,855	61	Woods, Fair, HSG B
	122,846	65	Weighted Average
	113,343		92.26% Pervious Area
	9,503		7.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Direct

**Subcatchment 2S: Proposed Conditions**





**Routing Diagram for 2168CombinedRev4**  
Prepared by Fairfield County Engineering LLC, Printed 12/18/2023  
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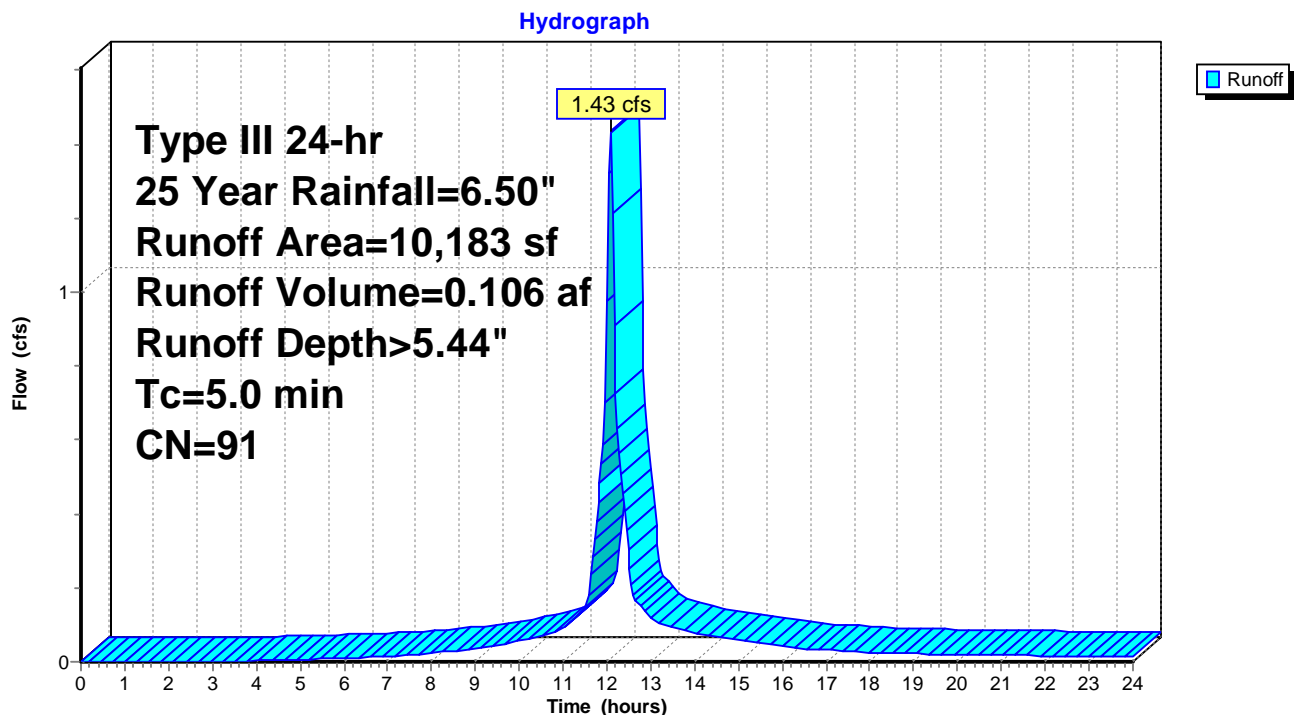
**Summary for Subcatchment 3S: Areas Routed to Retention**

Runoff = 1.43 cfs @ 12.07 hrs, Volume= 0.106 af, Depth> 5.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs  
Type III 24-hr 25 Year Rainfall=6.50"

	Area (sf)	CN	Description
*	5,115	98	Driveway
*	2,468	98	House
	2,600	69	50-75% Grass cover, Fair, HSG B
	10,183	91	Weighted Average
	2,600		25.53% Pervious Area
	7,583		74.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Direct

**Subcatchment 3S: Areas Routed to Retention**



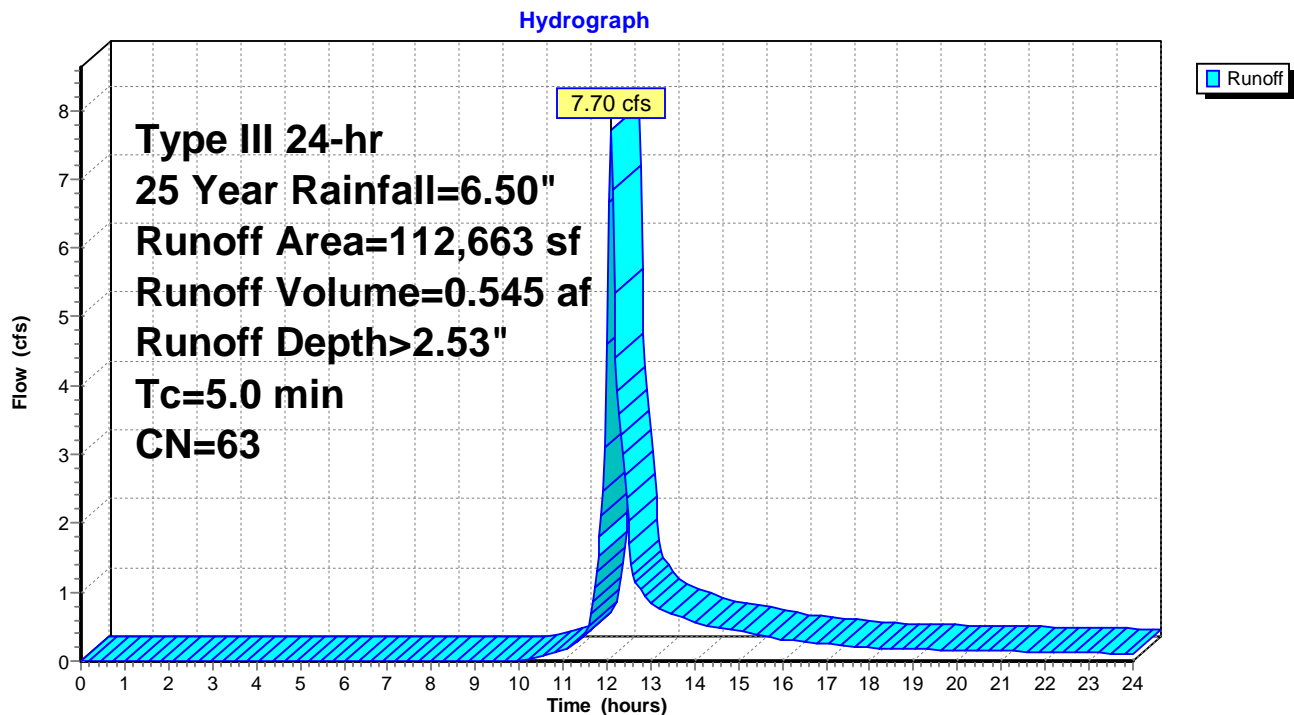
**Summary for Subcatchment 4S: Areas not Routed to Retention**

Runoff = 7.70 cfs @ 12.08 hrs, Volume= 0.545 af, Depth> 2.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs  
Type III 24-hr 25 Year Rainfall=6.50"

Area (sf)	CN	Description
* 525	98	Pool
* 1,395	98	Patio
19,888	69	50-75% Grass cover, Fair, HSG B
* 90,855	61	Woods, Fair, HSG B
112,663	63	Weighted Average
110,743		98.30% Pervious Area
1,920		1.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, Direct

**Subcatchment 4S: Areas not Routed to Retention**



**Summary for Pond 1P: Cultec R-280**

Inflow Area = 0.234 ac, 74.47% Impervious, Inflow Depth > 5.44" for 25 Year event  
 Inflow = 1.43 cfs @ 12.07 hrs, Volume= 0.106 af  
 Outflow = 1.15 cfs @ 12.16 hrs, Volume= 0.106 af, Atten= 20%, Lag= 5.5 min  
 Discarded = 0.10 cfs @ 11.16 hrs, Volume= 0.090 af  
 Primary = 1.05 cfs @ 12.16 hrs, Volume= 0.016 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs  
 Peak Elev= 541.42' @ 12.16 hrs Surf.Area= 700 sf Storage= 1,165 cf

Plug-Flow detention time= 78.1 min calculated for 0.106 af (100% of inflow)  
 Center-of-Mass det. time= 77.8 min ( 855.1 - 777.3 )

Volume	Invert	Avail.Storage	Storage Description
#1A	538.00'	254 cf	<b>41.17'W x 17.00'L x 2.21'H Field A</b> 1,545 cf Overall - 911 cf Embedded = 635 cf x 40.0% Voids
#2A	538.00'	911 cf	<b>Cultec R-280HD</b> x 20 Inside #1 Effective Size= 46.9"W x 26.0"H => 6.07 sf x 7.00'L = 42.5 cf Overall Size= 47.0"W x 26.5"H x 8.00'L with 1.00' Overlap Row Length Adjustment= +1.00' x 6.07 sf x 10 rows
		1,165 cf	Total Available Storage

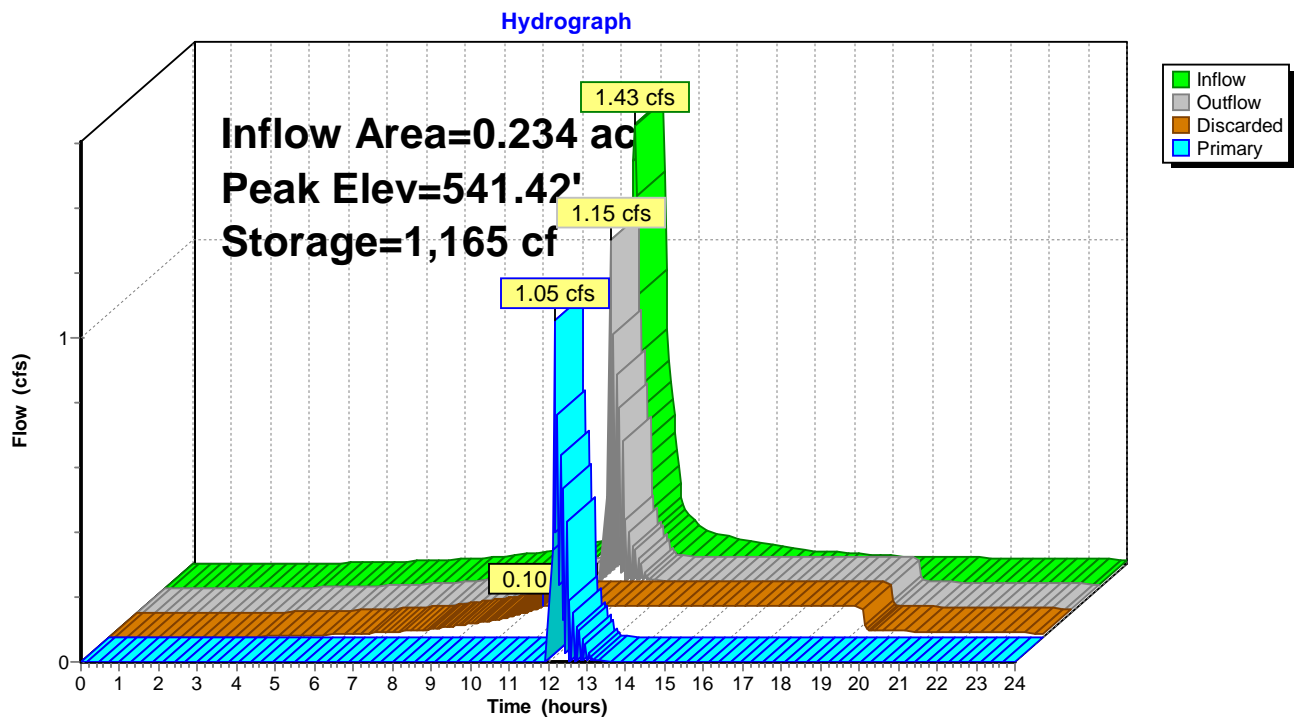
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	540.20'	<b>6.0" Horiz. Orifice/Grate</b> C= 0.600 Limited to weir flow at low heads
#2	Discarded	538.00'	<b>6.000 in/hr Exfiltration over Horizontal area</b>

**Discarded OutFlow** Max=0.10 cfs @ 11.16 hrs HW=538.02' (Free Discharge)  
 ↑ **2=Exfiltration** (Exfiltration Controls 0.10 cfs)

**Primary OutFlow** Max=0.99 cfs @ 12.16 hrs HW=541.29' (Free Discharge)  
 ↑ **1=Orifice/Grate** (Orifice Controls 0.99 cfs @ 5.03 fps)

## Pond 1P: Cultec R-280

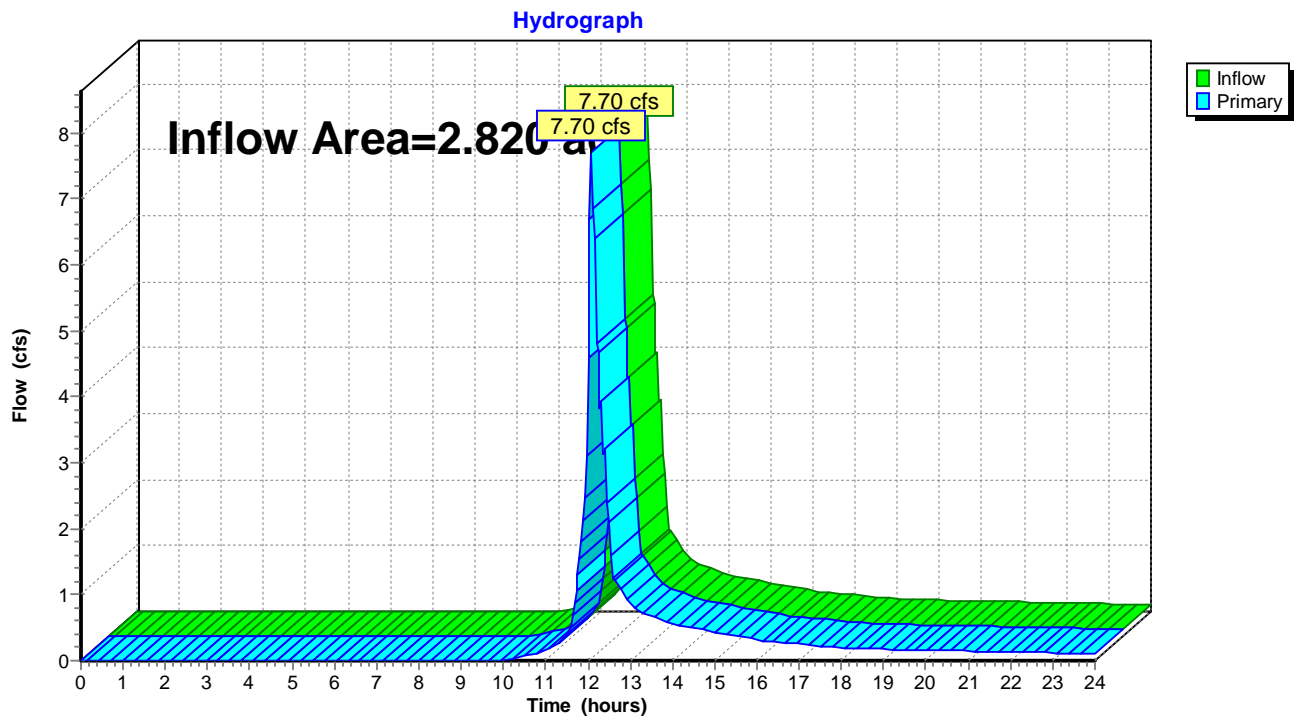




**Summary for Link 1L: Combined Hydrograph**

Inflow Area = 2.820 ac, 7.74% Impervious, Inflow Depth > 2.39" for 25 Year event  
Inflow = 7.70 cfs @ 12.08 hrs, Volume= 0.562 af  
Primary = 7.70 cfs @ 12.08 hrs, Volume= 0.562 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

**Link 1L: Combined Hydrograph**

**DRAINAGE REPORT**

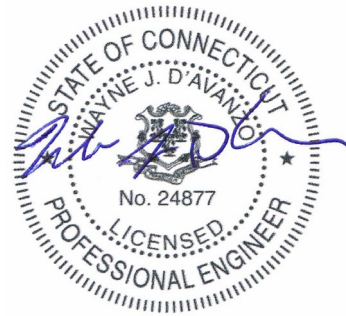
**PREPARED FOR**

**EXISTING AND PROPOSED SITE CONDITIONS**

LOCATED AT:

0 MOUNTAIN ROAD

FCE #2168



WILTON, CONNECTICUT

December 16, 2023

**FAIRFIELD COUNTY ENGINEERING, LLC**

**CIVIL ENGINEERS**

**60 WINFIELD ST.  
NORWALK, CONNECTICUT 06855  
(203) 831-8005  
FAX: (203) 831-8006  
E-mail to: [wayne@fairfieldce.com](mailto:wayne@fairfieldce.com)**





## **NARRATIVE:**

The subject of this report is a 2.82 acre parcel located at 0 Mountain Road in Wilton. The purpose of this report is to determine the existing and proposed runoffs resulting from the proposed site improvements in order to design a stormwater management system.

## **EXISTING CONDITIONS:**

The subject parcel is a rear lot located at the northwest side of Mountain Road, approximately 200 feet from its intersection with Indian Hill Road. The lot is currently vacant. The lot slopes moderately to steeply towards the wetlands centrally located on the property; from the north and south.

Existing soils at this location, as identified in the NRCS Soil Survey of Fairfield County, Connecticut, consist of Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky, which has a Hydrologic classification of 'B'.

The existing runoff as developed from a 25-Year rainfall event is 7.70 c.f.s.

## **PROPOSED CONDITIONS:**

The proposal for this site is to construct a new single family residence with associated driveway and pool.

The proposed runoff from a 25-Year rainfall event is 9.09 c.f.s.

## COMPUTATIONS:

The following computations of the existing and proposed conditions runoff flows were derived from the HydroCAD computer software. HydroCAD follows the NRCS TR-20 procedure for computing stormwater runoff. Computations were performed for a 25-year storm event, which has a 4% chance of occurring in any given 12 month period.

### Existing Conditions:

Woods	122,846 s.f.	CN 61
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Total -	122,846 s.f.	
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Weighted CN - **61**

### Proposed Conditions:

House	2,468 s.f.	CN 98
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Driveway	5,115 s.f.	CN 98
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Pool	525 s.f.	CN 98
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Patio	1,395 s.f.	CN 98
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Woods	90,855 s.f.	CN 61
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Lawn	22,488 s.f.	CN 69
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Total -	122,846 s.f.	
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Weighted CN - **65**

### Water Quality Volume

$$I = (7.7 \times 0.009) + 0.05 = 0.1193$$

$$WQV = (0.1193 (2.82 \text{ acres})/12) = 0.0280355 \text{ ac-ft} = 1,221.2 \text{ ft}^3.$$

### Groundwater Recharge Volume

$$GWV = 1,221.2 \times 0.25 = 305.3 \text{ ft}^3.$$



## SUMMARY

Existing Runoff (25 Year):	7.70 c.f.s.
Proposed Runoff (25 Year):	9.09 c.f.s.
Proposed Impervious Run-off Retained (25 Year):	1.43 c.f.s
Proposed Run-off from Areas Bypassing Retention plus overflow (25 Year):	7.70 c.f.s.

## CONCLUSIONS:

The increased runoff resulting from the proposed site improvements will be retained in an on-site retention system. The runoff from the house roof, driveway and a portion of the lawn will be routed to 20 units of Cultec R-280 retention chambers.

This system will maintain the net peak runoff during a 25 Year storm at its current peak of 7.70 c.f.s.

The proposed retention system provides 1,165 ft<sup>3</sup> of storage, which will accommodate the runoff from a 25 Year rainfall event routed to the system, and provides groundwater recharge.

The proposed improvements will have no adverse impact on surrounding properties.

**NEW ENGLAND WETLAND PLANTS, INC.**

**SEED MIX PRICING SHEET**

SHADE LOVING MEADOW MIX-2023-DEC

TOWN OF GREENWICH

12/19/2023

Application Rate lbs/acre	25
Minimum Quantity Required	10
Approximate Seeds/ft2	383
Price (\$ Per Pound)	\$160.98
Total FOB	\$1,609.81
Shipping and Handling Est	\$24.00
Total Cost	\$1,633.81

<u>Botanical Name</u>	<u>Common Name</u>	<u>Indicator</u>	<u>% By Weight</u>	<u>Approx Seed/ft2</u>	<u>Approx % by Seed Count</u>
Festuca arundinacea	Tall Fescue (n)	FACU	20.00%	24	6.27%
Elymus hystrix	Bottlebrush Grass		20.00%	9	2.35%
Carex grayi	Gray's Sedge	FACW+	13.00%	1	0.26%
Elymus villosus	Silky Wild Rye	FACU-	10.00%	5	1.31%
Carex scoparia	Blunt Broom Sedge	FACW	5.00%	39	10.18%
Anemone virginiana	Thimbleweed/Tall Anemone	FACU	2.00%	5	1.31%
Aquilegia canadensis	Eastern Columbine	FAC	2.00%	6	1.57%
Lobelia siphilitica	Great Blue Lobelia	FACW+	2.00%	89	23.24%
Eupatorium rugosum (Ageratina altissima)	White Snakeroot	FACU-	2.00%	28	7.31%
Geum canadense	White Avens	FACU	1.00%	2	0.52%
Solidago caesia	Blue Stem/Woodland Goldenrod	FACU	1.00%	4	1.04%
Juncus tenuis	Path Rush	FAC	1.00%	166	43.34%
Clematis virginiana	Virgin's Bower	FAC	1.00%	1	0.26%
Aster divaricatus(Eurybia divaricata)	White Wood Aster	5	1.00%	4	1.04%
			81.00%	383	100.00%